

NASA TECH BRIEF



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Random Access–Random Release Relay Switching Matrix

An XY relay switching matrix has been designed to provide complete random access and random release of 400 points. It combines the best features of conventional switching matrices. The most outstanding features of the new system are its versatility and unique control circuitry.

Associated with each point of the 400 point XY relay switching matrix is a mercury-wetted bistable relay with independent set and reset coils. A relay is opened or closed by momentarily energizing its set or reset coil. The relays, commercially available components, are mounted in units of four on a printed circuit board. One hundred board assemblies, housed in a drawer, provide the 400 switching points. These points are opened or closed in any desired sequence without affecting other points. Operation of the matrix is performed by means of a desk keyboard.

The matrix incorporates a memory feature which, when used with various display/readout techniques,

would permit additional switching capabilities, for example, presetting and programming. It is adaptable for remote programming of electronic and electro-mechanical switching and control systems.

Note:

Complete details may be obtained from:
Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama 35812
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Patent status:

No patent action is contemplated by NASA.

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